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ABSTRACT

This paper highlights the expressed educational attitudes and learning orientations of students who participated in a recent eight-college pilot study (total N = 4279). The Student Orientations Survey (S.O.S.), a ten-scale inventory developed by R.M. Gray and this writer, was used in this project in order to assess student's attitudes towards various curricular-instructional policies, student-faculty roles, participatory decision-making in academic affairs, and so on. Significantly different S.O.S. profiles were found for students at different types of institutions, as well as for students in dissimilar degree programs and a curricula at a given institution. Various implications of these data were discussed with attention given to the use of the research findings in promoting educational change on campus. (Author)

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ABSTRACT

The Educational Attitudes and Orientations of Undergraduates:

A Pilot Study of Inter-Institutional Differences

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This paper highlights the expressed educational attitudes and learning orientations of students who participated in a recent eight-college pilot study (total N = 4279). The Student Orientations Survey (S.O.S.), a ten-scale inventory developed by R.M. Gray and this writer, was used in this project in order to assess student's attitudes towards various curricular-instructional policies, student-faculty roles, participatory decision-making in academic affairs, and so on. Significantly different S.O.S. profiles were found for students at different types of institutions, as well as for students in dissimilar degree programs and curricula at a given institution. Various implications of these data were discussed with attention given to the use of the research findings in promoting educational change on campus.

The Educational Attitudes and Learning Orientations of Undergraduat s: A Pilot Study of Inter-Institutional Differences*

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The research reported in this paper is focused on the attitudes and orientations students have toward the various philosophies, purposes, and processes of a college education. Even to casual observers of the higher education scene, it is well known that our colleges and universities enroll individuals with tremendously diverse backgrounds, interests, and abilities. As Cross (1971) indicates, institutions are faced with an increasingly heterogeneous student population. What are the interests and learning orientations of our students? What are their attitudes about the curricular-instructional policies which affect them? What kind of educational processes do they desire? Moreover, what relationship exists between students' educational attitudes and their patterns of growth in both the cognitive and non-cognitive domains? These have been and will continue to be major questions for faculty and administrators at institutions of higher learning.

Many would argue that a college or university should place high priority on helping students develop the kind of educational experiences which are most appropriate to their particular goals, interests, and needs. In many respects, this concern is related to White's (1952) concept of the development of a "sense of competence" -- in this case, that a student can have some say as to the nature of his academic experiences by taking an active role in his own education. Furthermore, Chickering (1969)

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believes that the fostering of characteristics such as independence and initiative in students is inextricably linked to a college or university's educational practices. It follows then that an institution's academic policies and "processes" should be considered in light of the characteristics of the student clientele it serves. Hence, examining the educational attitudes and orientations of students will necessarily assume more substantive priority.

This is not to say that little has been done in the area of research on college students. To the contrary, Feldman and Newcomb (1969) have reviewed and compiled a massive number of research studies which have been undertaken over the last four decades. Mechanisms do exist for determining general characteristics and attitudes of students -- the American Council on Education's Survey of Entering Freshmen and the College Student Questionnaire (Peterson, 1965) are prime examples. Research on student perceptions of the college environment performed by Pace (1963) and Stern (1963), personality characteristic studies (Heist and Yonge, 1968), student "satisfaction" studies by Pervin (1967), Betz, et. al. (1971) are also valuable in their own right. However, these types of research studies do not necessarily involve consideration of the implications of curricular-instructional situations since for the most part, the research inventories employed do not deal directly with students' attitudes regarding educational processes and policies.

Thus, the first task in this project was one of devising an instrument appropriate for our purposes, namely, providing a way to assess students' attitudes regarding their preferred modes of learning, their views on student-faculty roles in educational decision-making, and so on. After extensive pre-testing of items and factor analyses (principal components), our efforts culminated in the development of the Student Orientations Survey (Gray and

Morstain, 1971) and this inventory was used in this inter-institutional research study. There are ten scales in the Student Orientations Survey (S.O.S.) with each scale consisting of eight items. Each item has four Likert-type response categories, ranging from "not at all like my attitude" to "closely reflects my attitude".

Before presenting some attitudinal profiles of students in different institutions and/or different degree programs, it would be helpful to give a brief overview and description of the S.O.S. scales.[1] The S.O.S. assesses five major dimensions or areas of student orientations to college, and, as noted below, each dimension is comprised of two corresponding scales. The dimensions and scales are as follows:

STUDENT ORIENTATIONS TO COLLEGE

"Preparatory" Orientations (5 Scales)	DIMENSIONS (Areas of Orientation)	"Exploratory" Orientations (5 Scales)
Achievement	1. PURPOSE	Inquiry
Assignment Learning	2. PROCESS	Independent Study
Assessment	3. POWER	Interaction
Affiliation	4. PEERS	Informal Association
Affirmation	5. PUBLIC POSITION	Involvement

Given the pattern of scale intercorrelations, one set of five scales clustered together in what has been interpreted as a general "Preparatory" orientation to college, and another set of five scales did likewise in terms of a general "Exploratory" orientation to college. That is, it appears that while college is most highly valued by some for its preparatory function -

[1] For a full discussion of the development, validity, and reliability of the Student Orientations Survey, see Morstain (1973a)

in terms of acquiring useful knowledge, skills, vocations, and social roles - it is valued most highly by others for its exploratory possibilities - i.e., for the opportunities it affords for exploring one's interests, ideas, and personal identity. These general orientations become more apparent when one examines the content and description of the ten scales. The five scales which deal with the "Preparatory" orientation are:

Achievement (Ach.)
This scale measures the degree to which a student is oriented toward (1) the achievement of a priori goals (usually some career in particular or success in general), (2) the acquisition of specific skills or credentials, (3) the satisfaction of receiving external rewards. The student who identifies with the contents of these items has a practical, goal-oriented outlook and tends to gauge various aspects of the college experience in terms of their future usefulness.

Assignment Learning (A.L.)
The student who agrees with a high proportion of the items on this scale reports that he learns best by meeting specific, clear-cut, formal requirements. His mode of learning is linear, i.e., he likes to master specified blocks or units of knowledge sequentially.

Assessment (As.)
An evaluation by those in authority seems to be quite important to the student who scores high on this scale. Grades and examinations are valued by this student because they provide not only some measure of his abilities but some incentive for using those abilities.

Affiliation (Affl.)
The student who prefers the manner of relating to peers expressed in items on this scale enjoys belonging to organized extracurricular groups. He appears to value the assurance of friendships such affiliation provides. Furthermore, he stresses the importance of maintaining strong institutional loyalty and support.

Affirmation (Affr.)
The student who agrees with items on this scale appears to affirm the values of a peaceful and orderly society. He tends to support public officials in their commitment to solve civic problems and feels "the majority can be counted on to make the right decisions." He would probably counsel care and caution in the area of social change.

The five 8-item scales which deal with the Exploratory Orientation are:

Inquiry(Inq.)
"Learning is its own reward" - in essence, this is the expressed motivation of the student who responds positively to most of the items on this scale. He concurs with statements which stress the value of insight, the perception of relationships, and knowing how to learn. He expresses curiosity about many things and appears to enjoy the satisfaction of inquiry whether or not it brings with it any other reward.

Independent Study (I.S.)
The items on this scale help to identify the student who works best on his own. He prefers informal, unstructured courses in which he can set his own goals and standards and pursue his own interests. He appears to place a high value on freedom and independence.

Interaction (Inter.)
An egalitarian attitude toward faculty members characterizes the student with a high score on this scale. This individual sees students as fully competent to share educational decision-making with faculty. In this connection he expresses the belief that students should participate with faculty in planning courses and academic programs.

Informal Association (I.A.)
Spontaneity marks the pattern of peer-relationships expressed by the student who responds favorably to this cluster of items. He expresses little need for affiliation with organized groups or for participation in formal, well-planned events. His association with fellow-students also tends to be unstructured.

Involvement (Inv.)
A strong interest in social and political affairs characterizes the student who has a high score on this scale. He sees students as having a rightful place in dealing with the public problems of our time. Further, he expresses a concern for the welfare of others and states his readiness to take a stand on public issues.

Results

Over the course of this pilot study, undergraduates at eight colleges and universities were administered the Student Orientations Survey (total N=4279)[2]. At this point in the research project, the goal was to determine the degree to which the S.O.S. could differentiate between students in various institutional settings and/or curricular programs. In this regard, S.O.S. profiles for students in five different institutions are presented in standard score form in Figure 1.

[insert Figure 1 here]

For these institutions, the S.O.S. means on the Preparatory scales show somewhat more variability than do the mean scores on the Exploratory scales. Students at Steubenville College (N=149), Harcum Junior College (N=92), and Concordia College (N=718), all private institutions, tend to have higher mean scores on the Preparatory scales of the S.O.S. than do students at Muhlenberg College (N=425) and the University of Delaware (N=2446). With one exception (Muhlenberg's score on Affiliation), these latter two institutions have scores on all Preparatory scales below the five-institution mean.

For the Exploratory scales, there is somewhat less variability in mean scores on the Independent Study, Interaction, and Involvement scales.[3] Across the five institutions, however, there is more noticeable variation in mean scores on the Inquiry and Informal Association scales.

[2] College of Steubenville, Concordia College (Minn.), Harcum Junior College, Muhlenberg College, St. Olaf's College, University of California at Davis, University of Delaware, Univeristy of Hawaii.

[3] On all but the Independent Study scale, F values from analysis of variance tests were significant at the .01 level.

It was also hypothesized that the S.O.S. profiles for students in different curricular areas would show as much if not more variability than inter-institutional comparisons. As there were fairly large Ns in five distinguishable curricula at the University of Delaware, a curricular program analysis was performed with data from that institution. S.O.S. profiles for students majoring in the following areas are presented in Figure 2: social sciences (N=433), natural sciences (N=317), humanities and fine arts (N=317), predominantly male professional curricula -- Engineering, Agriculture, Business (N=628), and predominantly female professional curricula -- Nursing, Home Economics, and Education (N=723).

[insert Figure 2 here]

Students in the social sciences and humanities had relatively lower mean scores on all Preparatory scales than students in the other three curricular areas. The profile for students in the natural sciences was slightly below the normative mean score of 50 on these scales, and was midway between the profiles for students in male professional curricula and those students majoring in social sciences and humanities.

Overall, there was more curriculum group variation in mean scores on the Exploratory scales as compared to the inter-institutional profiles previously presented. Humanities and social science majors expressed relatively more interest in having a participatory role with faculty in educational decision-making (Interaction) had more desire in developing "learning contracts" and other independent study or off-campus experiences (Indep. Study), and tended to view learning as its own reward, whether or not this learning had a practical or vocational pay-off (Inquiry). Humanities majors also had the highest mean score on the Informal Association scale (a desire for unstructured, spontaneous peer-relationships) while social science majors, as might be expected,

had the highest mean score on the Involvement scale (interest in socio-political issues). On the other hand, students, in the male professional curricula had the lowest mean scores on all five Exploratory scales.[4]

In a related domain, previous research on students who "self-select" themeselves into experimental programs has indicated that these students' general characteristics and personality orientations are substantially different from those of their peers in the regular curriculum (Heist and Biloursky, 1971; Suzcek and Alfert, 1970). It was hypothesized that differences in educational attitudes and orientations would also be evident for students in these two settings. S.O.S. profiles for freshmen in traditional liberal arts curricula and freshmen who voluntarily participated in experimental programs at both the University of Hawaii and St. Olaf's College are presented in Figure 3.

[insert Figure 3 here]

At each institution, the freshmen in the experimental program scored significantly higher on the Exploratory scales of the S.O.S. than did their peers in the regular curriculum, and significantly lower than their peers on the Preparatory S.O.S. scales. There were also substantial differences on certain scales when students in the two experimental programs and students in the two traditional curricula were compared on an inter-institutional basis.

For example, freshmen in the experimental ParaCollege program at St. Olaf's College had significantly higher scores on four of five Exploratory scales of the S.O.S. when compared to students in the New College experimental program at the University of Hawaii. In addition, freshmen in the regular academic curriculum at St. Olaf's College had lower mean scores on the Achievement,

[4] F values from analysis of variance tests on all scales were significant at the .01 level.

Affirmation, Independent Study, and Interaction scales when compared to their counterparts in the regular freshman year program at Hawaii. That there would be variation of this sort is not surprising, as the two institutions are quite dissimilar with respect to size, orientation, and admissions policies.

Discussion

Based on analyses of the data presented, the S.O.S. appears to be sensitive to the differing educational attitudes expressed by students in various institutional settings and curricular programs. This descriptive capability generally relates to the validity dimension of the S.O.S., as well as to the question of how the inventory can be used by researchers in the field of higher education. For example, one aspect of the impact of effectiveness of an academic program could be based in part on an analysis of the longitudinal changes in students' educational attitudes.[5]

Much discussion has also centered on the question of the relative "fit" of student and faculty educational attitudes, and what bearing this may have on student development. What is the degree of congruence or incongruence in educational attitudes and values for faculty and students, either in one class, one department, or the institution as a whole? This type of research may have implications for attempts to empirically validate hypotheses generated by the "challenge and response" conceptualization of student growth (Sanford, 1967).

[5] For an illustration of how the S.O.S. was used in assessing the impact of an academic program on student attitudes, see Morstain (1973b)

From this theoretical perspective, gaining a better overview of student attitudes is only one side of the picture. Hence, a "Faculty Orientations Survey" has been recently developed in order to provide a means of assessing a faculty member's educational attitudes and teaching orientations. The items in this new inventory, with appropriate changes, correspond quite closely to items found in the S.O.S. In a study which was initiated in April 1973, we are exploring the degree of student-faculty congruence in educational attitudes and what relationship a "disparity" factor has with respect to how students evaluate their courses and instructors. The hypothesis under consideration is that the higher the degree of student-faculty attitude incongruence, a student's course/instructor ratings will be relatively lower as compared to the ratings of students in a "high congruence" situation.

In sum, this research has evolved from that of simply describing the educational attitudes of students to focusing on the attitudes of students and faculty. Hopefully, a better understanding of teacher-student relationships and various learning processes will result from these efforts.

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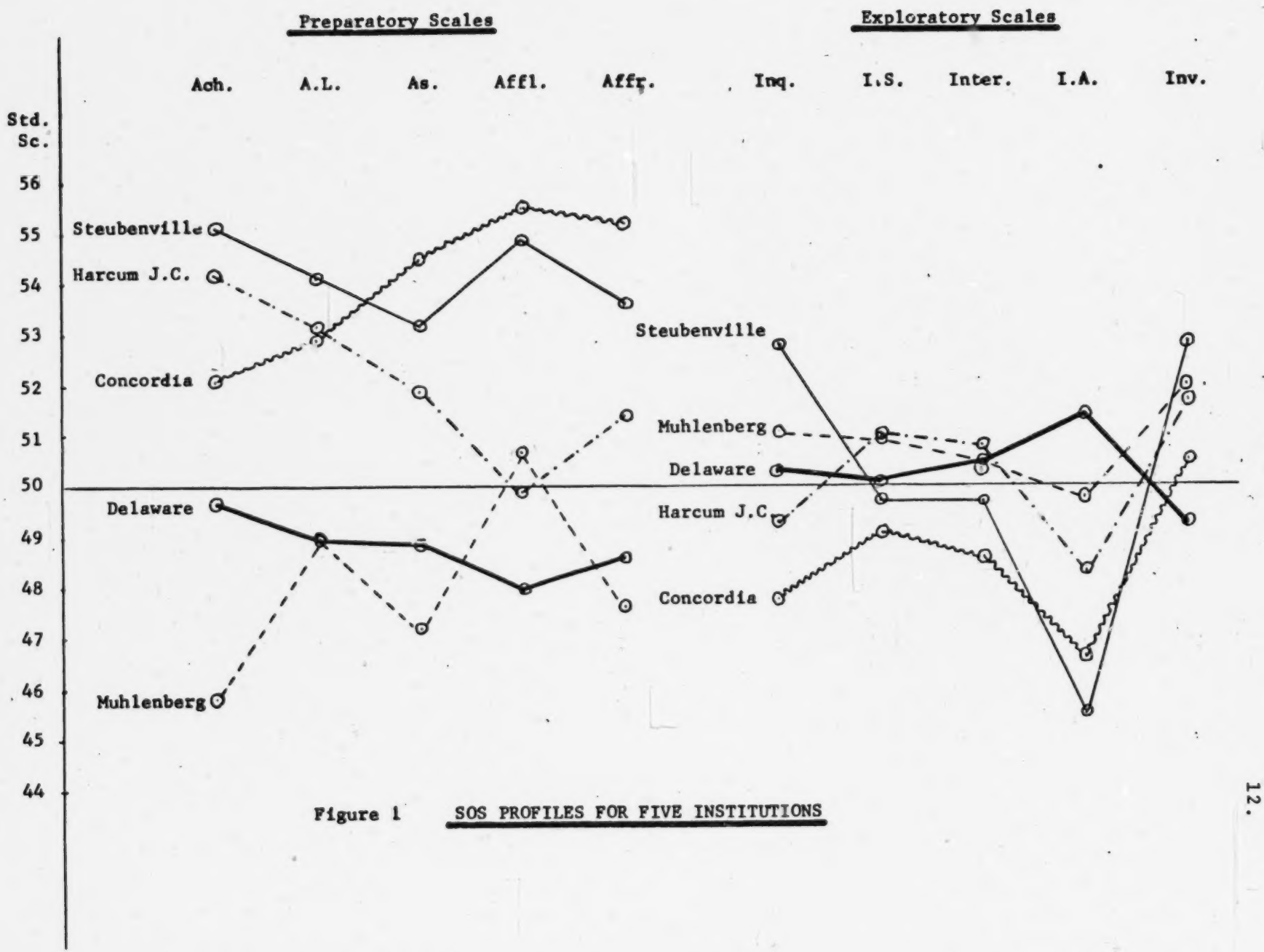

Figure 1 SOS PROFILES FOR FIVE INSTITUTIONS

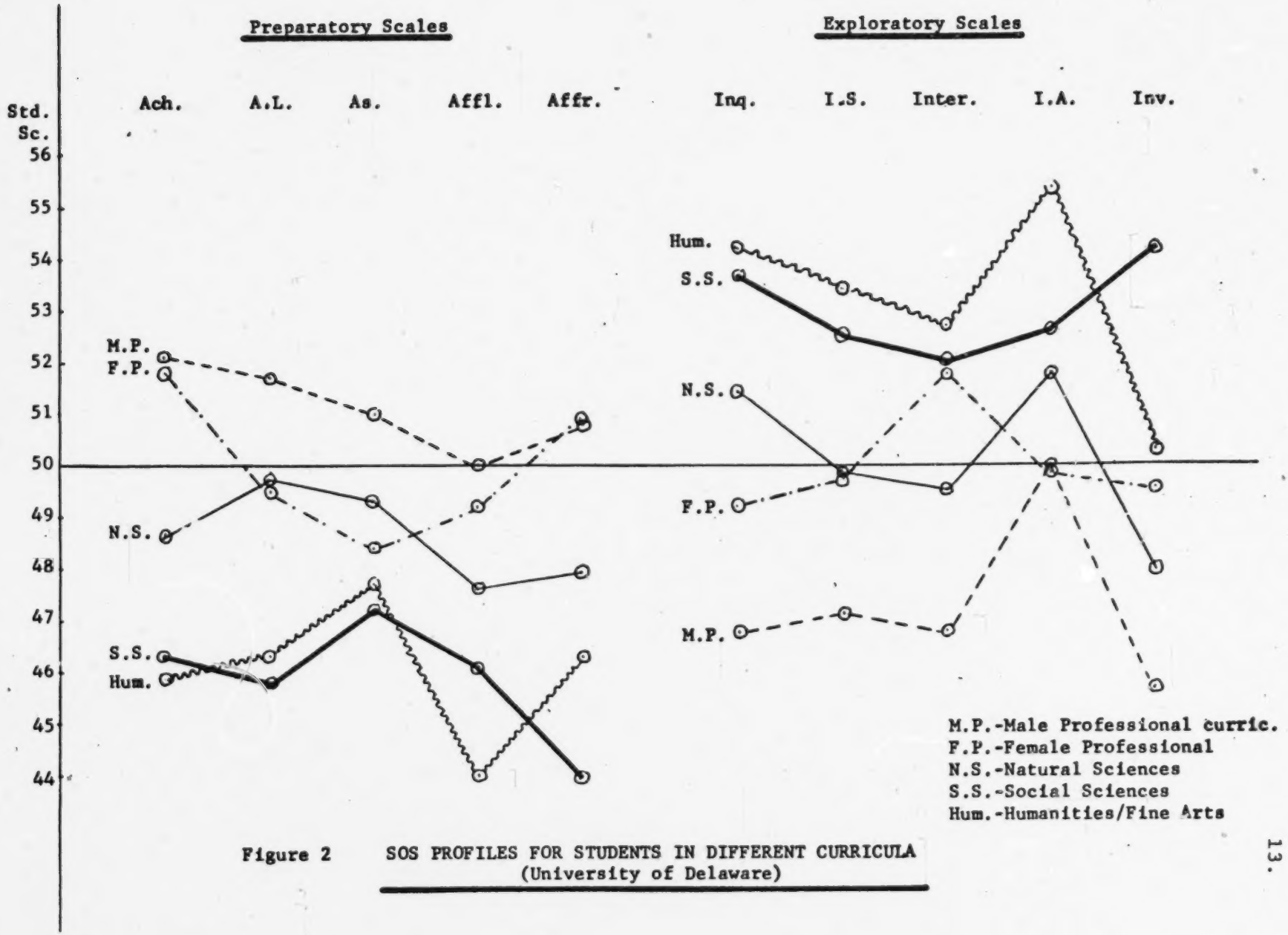

Figure 2 SOS PROFILES FOR STUDENTS IN DIFFERENT CURRICULA (University of Delaware)

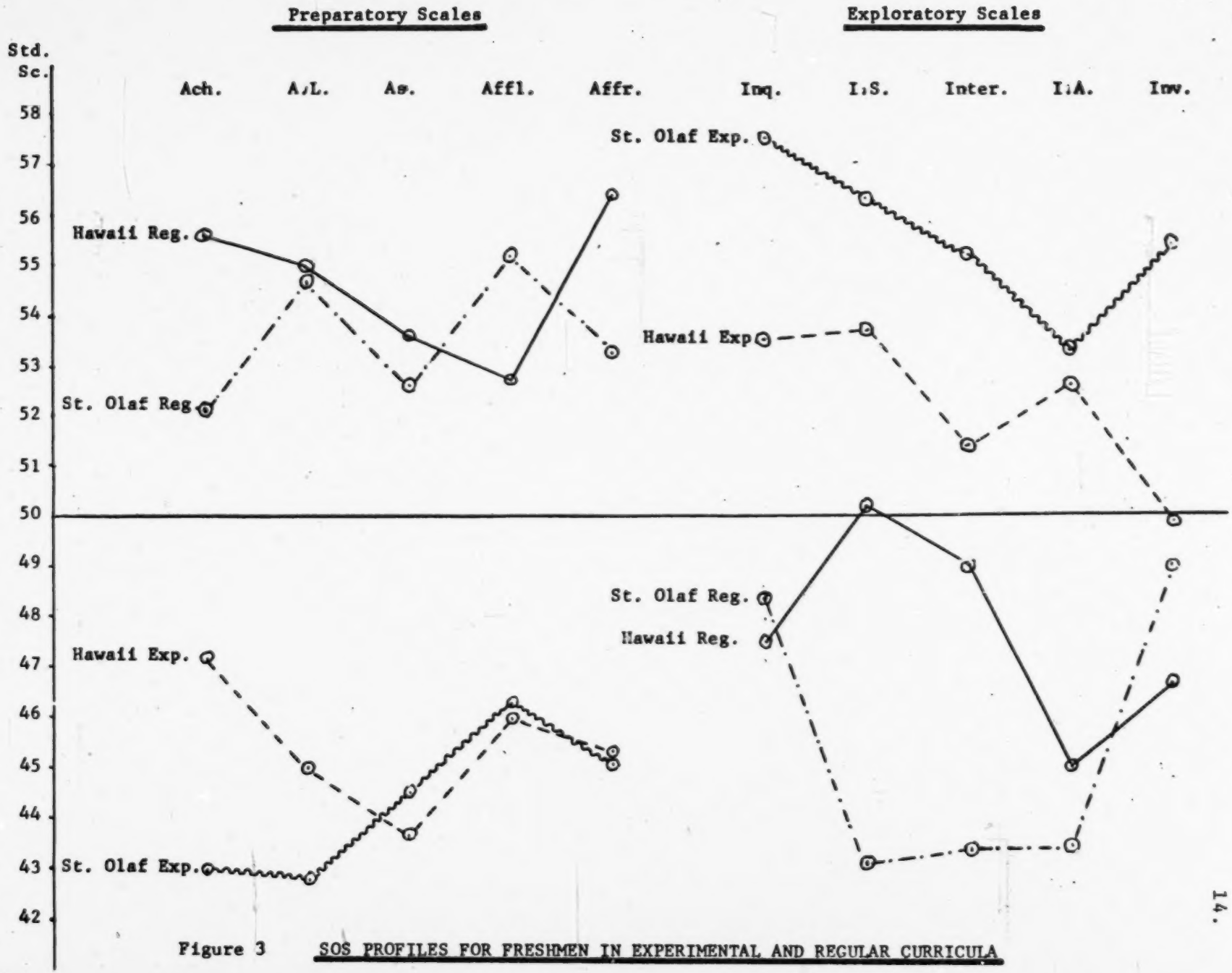

Figure 3 SOS PROFILES FOR FRESHMEN IN EXPERIMENTAL AND REGULAR CURRICULA